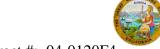
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-028812 Address: 333 Burma Road **Date Inspected:** 04-Dec-2012

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1730 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

CWI Name: See below. **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** OBG

Summary of Items Observed:

Quality Assurance Inspector (QA) Fritz Belford was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

Welder Chris Bruce #8901:

Welder was observed performing R1 exterior weld repairs on weld 12W W2.1-C1 indications rejected with Ultrasonic Testing (UTSW) by QC Inspectors between Y 27,400 and 28,400. Welder was observed utilizing Welding Procedure Specification (WPS) ABF-WPS-D15-1000 Repair for Shielded Metal Arc Welding (SMAW). Welder was observed preheating the weld prior to welding. Welding parameters as verified by QC Inspector William Sherwood appear to be in compliance with the WPS noted above. Weld sections at Y 18,600 to 31,000 is non SPCM, a "Request for Weld Repair" or (RWR) is not required for R1 repairs.

Welder Wai Kit Lai #2953:

Welder was observed performing R1 exterior weld repairs on weld 12W W2.1-C1 indications rejected with Ultrasonic Testing (UTSW) by QC Inspectors between Y 11,000 and 12,000. Welder was observed utilizing Welding Procedure Specification (WPS) ABF-WPS-D15-1004 Repair for Shielded Metal Arc Welding (SMAW) as per "Request for Weld Repair" or (RWR) 201211-005. Welder was observed preheating, maintaining interpass temperatures and post weld heat treating the weld as per WPS and RWR noted above. Welding parameters as verified by QC Inspector William Sherwood appear to be in compliance with the WPS noted above.

Welder Rick Chouinard #8959:

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Welder was observed performing R1 exterior weld repairs on weld 12W W2.1-C1 indications rejected with Ultrasonic Testing (UTSW) by QC Inspectors between Y 2,600 and 3,000. Welder was observed utilizing Welding Procedure Specification (WPS) ABF-WPS-D15-1004 Repair for Shielded Metal Arc Welding (SMAW) as per "Request for Weld Repair" or (RWR) 201211-005. Welder was observed preheating, maintaining interpass temperatures and post weld heat treating the weld as per WPS and RWR noted above. Welding parameters as verified by QC Inspector William Sherwood appear to be in compliance with the WPS noted above.

Welder Mike Jimenez #4671:

Welder was observed performing R1 interior weld repairs on weld 12E E2.1-C1 indications rejected with Ultrasonic Testing (UTSW) by QC Inspectors at Y 3,360 and 4,100. Welder was observed utilizing Welding Procedure Specification (WPS) ABF-WPS-D15-1004 Repair for Shielded Metal Arc Welding (SMAW) as per "Request for Weld Repair" or (RWR) 201210-016. Welder was observed preheating, maintaining interpass temperatures and post weld heat treating the weld as per WPS and RWR noted above. Welding parameters as verified by QC Inspector Barry Drake appear to be in compliance with the WPS noted above.

Welder Eric Sparks #3040:

- 1) Welder was observed performing R1 interior weld repairs on weld 12E E2.1-C1 indications rejected with Ultrasonic Testing (UTSW) by QC Inspectors between Y 20780 and 20280. Welder was observed utilizing Welding Procedure Specification (WPS) ABF-WPS-D15-1000 Repair for Shielded Metal Arc Welding (SMAW). Welding parameters as verified by QC Inspector William Sherwood appear to be in compliance with the WPS noted above. Weld section is non SPCM and an RWR is not required for this repair.
- 2) Welder was also witnessed by this QA Carbon Arc Gouging (CAG) an R5 repair at weld 13W 14W-AO at Y 515 as per "Request for Weld Repair" or (RWR) 201211-036. Only the excavation of the indication rejected with Ultrasonic Testing by QA Inspector was completed this day. Welding as per WPS ABF-WPS-D15-1004 Repair to commence the following day as weather permits. QC Inspector Patrick Swain was in attendance as well to witness the excavation.
- 3) Welder was observed performing base metal repair on a Visual Testing reject by QA Inspector on weld 13W W2. 3 at Y 560 as per "Request for Weld Repair" or (RWR) 201211-008. Welding Procedure Specification (WPS) ABF-WPS-D15-1004 Repair for Shielded Metal Arc Welding (SMAW) was utilized as per RWR, QC Inspector Salvador Merino was in attendance.

Welders Deli Zhang #4735, Guo Wu Chen #1556 & Jin Quan Huang #9340:

Welders were observed welding the Water Diverter Plates on to the "A" Deck at 13W PP121.6 thru PP123.6 W2.1 utilizing Welding Procedure Specifications (WPS) ABF-WPS-D15-1030 Rev.2 for the diverter plate splice welds, and WPS ABF-WPS-D15-F1200A for the plate weld attachments to the deck plating. Welding parameters as verified by QC Inspector Salvador Merino appear to be in compliance with the WPS noted above.

Welder Richard Garcia #5892:

Welder was observed seal welding weld SSES-T at the top of the Tower utilizing Welding Procedure Specifications (WPS) ABF-WPS-D15-F1200A. Welding parameters as verified by QC Inspector Fred Michaels appear to be in compliance with the WPS noted above.

Non-Destructive Testing (NDT)

This QA performed and Magnetic Particle Testing (MPT) and Hardness Testing (HT) on the following:

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Weld 13W 14W-AO:

- Exterior Excavation 65 x 21 x 11 Deep at Y 515 (MPT Accept) Hardness Testing:
- Weld 13W W2.1, at Y 9250 and 7910.
- Weld 13E E2.3, at Y 1440 and 180.

This QA witnessed QC Patrick Swain perform Hardness Testing at the same locations mentioned above. (Hardness Testing results left in the tester as per Engineers request)

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.









Summary of Conversations:

Conversations this day as required for scope of work.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Gary Thomas - (916) 764 - 6027, who represents the Office of Structural Materials for your project.

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Inspected By: Belford,Fritz Quality Assurance Inspector **Reviewed By:** Reyes, Danny QA Reviewer